	Application No.	Applicant(s)
	дррисации мо.	
Notice of Allowability	09/422,154	POWELL ET AL.
	Examiner	Alt Ome
	Katarzyna Wyrozebski Lee	1714
The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.		
1. This communication is responsive to 2/27/2004.		
2. 🔀 The allowed claim(s) is/are <u>1,4-11, 13,15-20,31-33,35-41,45-59,63-72,8, 84, 88 and 112-117</u> .		
3. The drawings filed on are accepted by the Examiner.		
 4. Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)). * Certified copies not received: 	e been received. e been received in Application No cuments have been received in th	· nis national stage application from the
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	NENT Of this application.	
5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.		
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") mu (a) ☐ including changes required by the Notice of Draftsper 1) ☐ hereto or 2) ☐ to Paper No./Mail Date 10/19 (b) ☐ including changes required by the attached Examiner Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in 	son's Patent Drawing Review(P 99. 's Amendment / Comment or in the 1.84(c)) should be written on the dr the header according to 37 CFR 1.	ne Office action of rawings in the front (not the back) of 121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.		
Attachment(s) 1. Notice of References Cited (PTO-892) 2. Notice of Draftperson's Patent Drawing Review (PTO-948) 3. Information Disclosure Statements (PTO-1449 or PTO/SB Paper No./Mail Date 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ⊠ Interview Sumn Paper No./Mai /08), 7. ⊠ Examiner's Am	l Date <u>0204,0304</u> .

Application/Control Number: 09/422,154

Art Unit: 1714

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. DeLuca on 3/12/2004.

The application has been amended as follows:

In claim 48, line 11, delete term "about"

Application/Control Number: 09/422,154

Art Unit: 1714

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The amendment after final submitted on 2/27/2004 with one month extension cancels claims that were both rejected and objected to by the examiner.

Pending claims previously indicated allowable by the examiner claim organo-clay, process of making the organoclay and polymer clay nanocomposite. The difference between the present invention and the prior art of record is that the quaternary ammonium of independent claim 1, 58, and 83) are diester quats used in mixture with monoester or triester quats or both. Other claims (59) require that the ammonium compound be alkoxylated ester quat. In addition, process claims require special ratio of fatty acid to alkanol amine, wherein at least one of the R groups is alkoxylated (claim 48).

The prior art of record distinctly teaches that the use of ester quat of an ammonium compound. The prior art of ROSS as applied against present claims discloses use of a generic ester quat, and it does not teach suggest or otherwise discloses mixture of mono, di, and triester quats. The prior art of MARDIS as applied against present claim during the prosecution of the application, although discloses an alkoxylated ammonium compound, its structure is little different, as the ester containing substituents is not alkoxylated. In addition, in the process of MARDIS the ratio of fatty acids to alkanol amines is at most 1:1, which is well below the ratio claimed in the present invention. In view of the above discussion, pending claims are passed to issue.

Application/Control Number: 09/422,154 Page 4

Art Unit: 1714

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner

Art Unit 1714

kiwl March 12, 2004